



**TO:** Matthew L. Blomstedt, Ph.D.  
Commissioner of Education

**FROM:** Valorie Foy and John Moon

**SUBJECT:** Assessment contract with Data Recognition Corporation

**Proposed Board Action:**

Grant the Commissioner the authority to contract for the assessment services with Data Recognition Corporation (DRC)

**Background Information:**

Contract Services with Data Recognition Corporation ---Nebraska Assessment: (Solicitation Number NDE 12-449-01)

**Estimated Cost:**

\$5,364,409.

**Supporting Documentation Included:**

Budget and Data Recognition Corporation Letter of Assurance

**For Additional Information on this item:**

Valorie Foy at 402-471-6469 or [valorie.foy@nebraska.gov](mailto:valorie.foy@nebraska.gov)

**Data Recognition Corporation Contract: Two Year Information**

<b>Description</b>	<b>Year 1 (2013-14) Cost</b>	<b>Year 2 (2014-15) Cost</b>	<b>Change</b>
<b>Project Management and Planning</b>			
General Project Management Support	\$ 733,739	\$ 786,752	\$ 53,013
Meetings	\$ 73,517	\$ 108,868	\$ 35,351
<b>Subtotal</b>	<b>\$ 807,256</b>	<b>\$ 895,620</b>	<b>\$ 88,364</b>
<b>Assessment System Development</b>			
General Development Support	\$ 268,173	\$ 269,898	\$ 1,725
10 Reading Passages per Grade	\$ 76,863	\$ 60,393	\$ (16,470)
Item Bank	\$ 76,269	\$ 50,653	\$ (25,616)
Alternate Assessment Item Bank*		\$ 25,998	\$ 25,998
Practice Tests	\$ 737	\$ 741	\$ 4
Online Assessment Design/Functionality	\$ 222,819	\$ 223,933	\$ 1,114
Test Construction	\$ 144,179	\$ 130,702	\$ (13,477)
Alternate Assessment Test Construction*		\$ 14,198	\$ 14,198
<b>Subtotal</b>	<b>\$ 789,040</b>	<b>\$ 776,516</b>	<b>\$ (12,524)</b>
<b>Delivery of Assessments</b>			
General Delivery Support	\$ 70,193	\$ 70,544	\$ 351
Evaluation of District Technology Capacity	\$ -	\$ -	\$ -
Student Identification and Tracking (Precode)	\$ 20,509	\$ 20,611	\$ 102
Online Enrollment System	\$ 104,325	\$ 104,847	\$ 522
Materials	\$ 569,811	\$ 562,856	\$ (6,955)
Alternate Assessment Materials*		\$ 9,804	\$ 9,804
<b>Subtotal</b>	<b>\$ 764,838</b>	<b>\$ 768,662</b>	<b>\$ 3,824</b>
<b>Administration of Assessments</b>			
General Administration Support	\$ 6,376	\$ 6,408	\$ 32
Online Administration: Writing	\$ 176,886	\$ 177,770	\$ 884
Online Administration: Reading-Math-Science	\$ 511,181	\$ 477,942	\$ (33,239)
Material Packaging, Shipping, Return & Check-in	\$ 94,994	\$ 77,725	\$ (17,269)
Print Responses to Writing Prompts	\$ 25,187	\$ 25,187	\$ -
Customer Service	\$ 101,967	\$ 102,477	\$ 510
Administration of Alternate Assessment*		\$ 53,539	\$ 53,539
<b>Subtotal</b>	<b>\$ 916,591</b>	<b>\$ 921,048</b>	<b>\$ 4,457</b>
<b>Scanning/Imaging</b>			
General Scanning/Imaging Support	\$ 69,402	\$ 69,749	\$ 347
<b>Subtotal</b>	<b>\$ 69,402</b>	<b>\$ 69,749</b>	<b>\$ 347</b>
<b>Scoring</b>			
Scoring Support: Writing / Reading-Math-Science	\$ 47,313	\$ 47,550	\$ 237
PAS Scoring: Writing	\$ 509,110	\$ 511,654	\$ 2,544
<b>Subtotal</b>	<b>\$ 556,423</b>	<b>\$ 559,204</b>	<b>\$ 2,781</b>
<b>Analysis</b>			
General Analysis Support	\$ 211,821	\$ 212,880	\$ 1,059
Calibration, Scaling, and Equating	\$ 80,582	\$ 80,985	\$ 403
Field Test Item Analysis	\$ 120,872	\$ 121,476	\$ 604
<b>Subtotal</b>	<b>\$ 413,275</b>	<b>\$ 415,341</b>	<b>\$ 2,066</b>
<b>Reporting</b>			
General Reporting Support	\$ 132,046	\$ 132,706	\$ 660
Parent/Guardian Reports	\$ 63,417	\$ 63,734	\$ 317
Summary Reports 2013-14	\$ 20,165	\$ 20,265	\$ 100
Data Files	\$ 26,204	\$ 26,335	\$ 131
Interpretive Materials	\$ 6,989	\$ 7,024	\$ 35

Description	Year 1 (2013-14) Cost	Year 2 (2014-15) Cost	Change
Technical Report 2013-14	\$ 113,182	\$ 113,748	\$ 566
<b>Subtotal</b>	<b>\$ 362,003</b>	<b>\$ 363,812</b>	<b>\$ 1,809</b>
<b>Check for Learning</b>			
Check for Learning	\$ 533,257	\$ 535,923	\$ 2,666
<b>Subtotal</b>	<b>\$ 533,257</b>	<b>\$ 535,923</b>	<b>\$ 2,666</b>
<b>Additional</b>			
Optional Spellchecker - NeSA Writing		12,845	12,845
Sortable Electronic NeSA ISRs		23,138	23,138
Additional Corrections Window Prior to Printing NeSA ISRs		22,550	22,550
<b>Total Base Costs</b>	<b>\$ 5,212,085</b>	<b>\$ 5,364,408</b>	<b>\$ 152,323</b>
<b>Funding for Assessment</b>			
<b>State Funds</b>	<b>\$1,660,869.00</b>		
<b>Federal Funds</b>	<b>\$3,600,000.00</b>		
<b>Special Education Federal Funds</b>	<b>\$103,539.00</b>		
<b>Total</b>	<b>\$5,364,408.00</b>		
* Separate Line Items for Alternate in 2015, in 2014 Alternate Costs included with Other Costs			



May 6, 2014

Dr. Valorie Foy  
Director of Statewide Assessment  
Nebraska Department of Education  
301 Centennial Mall South  
Lincoln, NE 68509

Dear Dr. Foy:

Data Recognition Corporation (DRC) welcomes the opportunity to provide specific information regarding the steps we will be taking to ensure a smooth and stable 2014-2015 assessment year in Nebraska.

DRC's Software Quality Assurance (SQA) team plans to perform a variety of standard testing plans prior to releasing the 2014-2015 DRC INSIGHT system for NeSA and Check4Learning. These steps will ensure that all of the DRC INSIGHT components are operational, working, and ready for school district use by September 1, 2014. The steps include, but are not limited to, the following:

- **System testing**—verify that all systems function against requirements, stated and implied.
- **Performance and load testing**—verify that systems will handle projected loads.
  - Performance tests are based on the anticipated number of students who will test concurrently for a given assessment.
  - DRC repeatedly runs performance tests at three times the expected rate to demonstrate our system will perform well above the required capacity without error.
- **Security testing**—verify that the system meets all security requirements.
- **Platform testing**—verify that the system performs consistently across all supported computer platforms and browsers.
- **End-to-end integration testing**—ensure the proper interoperability of all DRC enterprise systems.
- **Large-scale simulations**—a cross-functional team of 40-50 DRC employees will perform exploratory tests on all enhancements to the online test client software to ensure usability and reliability across a wide range of usage scenarios.
- **Final production form reviews**—conduct a final review of all production forms prior to use by students.
- **Production quality control**—ensure that all production data and deliverables meet all requirements, both stated and implied.

Our Software Quality Assurance team has developed over 500 formal test cases for DRC INSIGHT. These test cases will be included in our regular regression testing, including the final regression testing that will take place prior to the release of any software to production for Nebraska.

We have reevaluated the above processes, adding steps and extra test cases that will enhance the plan for Nebraska.

## **COMPONENT SUMMARY for 2014-2015 NeSA-Writing, Reading, Math, Science, Mathematics, and Check4Learning**

### **DRC INSIGHT**

We are committed to the performance of both the Web-Based Test Engine (WBTE) and the Secure Browser (SB). There are no major changes planned to either before September 2014. Unlike the previous testing season, which was challenging because of the shift from Java to a web-based system, the coming year should be marked by stability. Small enhancements to the engine may be made in early August. If so, we will inform you of these updates in advance.

DRC would like to offer, at no additional cost, a full-time technical support resource to be based in Nebraska. This person will be available to provide year-round technical assistance for districts and schools across the state. This new position will supplement the Minnesota-based technical teams that support Nebraska.

DRC understands that the Department desires more “real-time” reporting of technology updates/incidents. We will continue to enhance the communication processes used during the testing windows.

### **Testing Site Manager (TSM)**

DRC strongly recommends that the most recent version of the TSM be installed across all sites before August 15, 2014. In doing so, districts should be confident in the functionality of the TSM.

The TSM is designed to fulfill multiple roles in the process of preparing for and conducting online testing. TSM testing covers all areas of functionality and will be conducted on all supported operating systems, including Windows, Mac, and Linux. The testing team executes the following steps focused on the TSM functionality:

- The user interface
- Integration with the secure browser
- Readiness checks
- Content download including form content, Text-To-Speech
- Response caching
- Response transmission to the DRC servers
- Load Simulations
- Ping Trends
- Installation and configuration
- The uninstall process
- System updates

### **Text-to-Speech (TTS)**

TTS functionality testing focuses on the functionality in the test engine, as well as the TSM’s ability to serve the necessary audio content to the test engine. Multiple reviews of the test content and associated audio files are also conducted by the Test Development group. When testing TTS for a client, the SQA testing team executes the following steps focused on the TTS functionality:

- TTS content update on multiple TSMs
- Test ticket creation in the system for students indicating a need for online audio accommodations
- Audio controls (stop, starting points, play/pause) present and functional on all necessary pages
- Audio options (volume, speed, follow along) on all pages

- All pages read automatically by TTS
- All Stop/Pause/Play scenarios and associated audio restart/resume
- Tool Tips
- Item page, including response options
- Response selection audio
- Multi-page passage-specific functionality
- Multi-page item-specific functionality
- Pop-up windows, including Help and References
- Starting Points, including activation, navigation, and selection
- Follow along, including activation and passage scrolling

### **NeSA-Writing Field Test**

DRC is prepared for a fully operational NeSA-Writing Field Test in November. The tabbing issue that resulted in lost work for some students in January and February 2014 has been addressed with changes in the WBTE code. A process change to the database was implemented to prevent the type of system outage that occurred on January 23, 2014.

We have enhanced our quality control process with the addition of a team of qualified writing assessment professionals that will partner with our technology staff. Together, this group will check the functionality of the writing system, including formatting of responses, at least one month prior to the NeSA-Writing Field Test window.

**DRC assures that all components will be available September 1, 2014 in the environment in which actual testing will occur.** (This date relates to the item types included in the current contract. If the option of technology-enhanced item types is added, additional time may be needed to incorporate the new item types.)

- Online Tools Training (OTTs) – all subjects and grade levels
- Practice Tests – all subjects and grade levels, including NeSA-Writing Practice Tests
- Guided Practice Tests – all subjects and grade levels
- Online Tools Training – Spanish, all subjects and grade levels
- Practice Tests – Spanish, all subjects and grade levels
- Text-to-Speech operational
- Testing Site Manager operational
- Check4Learning – all components operational
- Fully operational NeSA-Writing Field Test – available starting the second week of November through the third week of December (including the elimination of formatting errors)

These deliverables are all currently available, but will also be fully regression-tested prior to September 1, 2014.

While DRC has committed to the use of Chromebooks, iPads that support iOS 6 or higher, and Windows 8.1 tablets (non-touch) for the NeSA-Reading, Math, Science testing in Spring 2015, we would welcome additional conversations with NDE to plan a pilot of technology devices to assure a smooth implementation to new devices, to possibly plan for their use earlier in the school year, and to facilitate their use for Check4Learning.

DRC will be focusing our software development and testing on consistent, reliable integration of all online testing functionality, with a particular emphasis on stability. Our feature development teams include business analysts, software developers, and software testers, working in close cooperation on the end-to-end development of their features. Once released to pre-production, all features will be rigorously retested along with existing DRC

INSIGHT functionality to ensure that new features do not negatively impact any functionality of the existing system.

We would like to offer Nebraska the opportunity to participate in user acceptance testing of DRC INSIGHT prior to the release of software and tests to Nebraska's schools and districts. This user acceptance testing would allow NDE an early look at final production release components, and could be conducted in a variety of ways to meet NDE's needs—more or less formal, more or less extensive, etc. We look forward to discussing this possibility with you further.

DRC understands that the Department will be forming an Assessment Advisory Group that will include representatives from districts and schools across Nebraska. We look forward to conversations with the Department about how we can support this effort.

DRC's Chief Quality Officer, Ms. Lisa Peterson-Nelson, will provide executive-level leadership and management of the Nebraska quality process for 2014-2015. Ms. Peterson-Nelson will marshal all of DRC's corporate resources toward this effort and will regularly monitor and audit progress and results.

DRC is committed to delivering our products and services to the Nebraska Department of Education with the highest quality. We value our partnership with the state and look forward to any additional feedback you have to share with us after reviewing these steps.

Sincerely,



Doug Russell  
Senior Vice President, Education Program Management



Lisa Peterson-Nelson  
Chief Quality Officer

cc: Susan Engeleiter  
Chief Executive Officer and President